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# Dundee Discussion Papers in Economics

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## The Living Wage: Reducing inequality in the UK?

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# **The Living Wage: Reducing inequality in the UK?**

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## **The Living Wage: Reducing inequality in the UK?**

### **Abstract**

The revival of support for a living wage has reopened a long-run debate over the extent to which active regulation of labour markets may be necessary to attain desired outcomes. Market failure is suggested to result in lower wages and remuneration for low skilled workers than might otherwise be expected from models of perfect competition.

This paper examines the theoretical underpinning of living wage campaigns and demonstrates that once we move away from idealised models of perfect competition to one where employers retain power over the bargaining process, such as monopsony, it is readily understandable that low wages may be endemic in low skilled employment contracts. The paper then examines evidence, derived from the UK Quarterly Labour Force Survey, for the extent to which a living wage will address low pay within the labour force. We highlight the greater incidence of low pay within the private sector and then focus upon the public sector where the Living Wage demand has had most impact. We examine the extent to which addressing low pay within the public sector increases costs. We further highlight the evidence that a predominance of low pay exists among public sector young and women workers (and in particular lone parent women workers) but not, perhaps surprisingly, among workers from ethnic minority backgrounds. The paper then builds upon the results from the Quarterly Labour Force Survey with analysis of the British Household Panel Survey in order to examine the impact the introduction of a living wage, within the public sector, would have in reducing household inequality.

The paper concludes that a living wage is indeed an appropriate regulatory response to market failure for low skilled workers and can act to reduce age and gender pay inequality, and reduce household income inequality among in-work households below average earnings.

### **JEL Classifications**

J38, I38, D63

### **Keywords**

Living Wage, Poverty, Inequality, Minimum Wage

## 1. Introduction

The necessity and desirability of regulating labour markets, and specifically wage levels for low paid workers, has been debated as long as free wage labour has been a mechanism for the use of labour in the production process. Rioting and arson provided a means of resistance to both enforced and low paid unskilled labour in early industrial England. So in 1794 three days of rioting and arson destroyed the ‘crimping houses’ of central London used to recruit personnel into the military with its ‘... humiliating and degrading slavery, for the miserable pittance of sixpence a day...’<sup>1</sup> As skilled labour faced competition from less skilled labour control over entry into guilds provided a mechanism for the protection of employment and wages in manufactured trades in the eighteenth and nineteenth century. Within the engineering trades of Birmingham restrictions upon the employment of ‘illegal men’ was retained until the 1890s.<sup>2</sup>

Within this context the reigniting of campaigns for a living wage are but the most recent development of long running debates over the extent to which low skilled labour requires additional protection within the labour market. While the terminology and focus of such debates have altered over time to restrict child labour in the nineteenth century, utilise wages boards in sweated industrial and agricultural trades in the early twentieth century to minimum wages in the late twentieth century a living wage is but the most recent example of attempts to place a floor on the level of wages paid to unskilled labour.

Central to the justification of a living wage lies the assumption that low skilled labour faces specific problems of excessive exploitation within market economies, particularly in relation to bargaining in employment contracts. Within an economic context this may arise from three specific reasons, namely in either the supply or demand for labour and finally in imperfect information within labour markets.

If a living wage can be economically justified in terms of one or other forms of market failure what effect would such a wage have? Could a living wage demonstrate an ability to compensate for labour market heterogeneity? Could a living wage reduce the social cost of monopsony, perhaps by demonstrating an impact on equality?<sup>3</sup>

The following sections of this paper address these questions using data from the UK Quarterly Labour Force Survey and then, utilising data from the British Household Panel

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<sup>1</sup> Anon, *Letters on the Impolicy of a Standing Army in Time of Peace, and on the unconstitutional and illegal measure of Barracks*, quoted in Thompson E.P.(1982), *The Making of the English Working Class*, (Penguin, Harmondsworth) p.88.

<sup>2</sup> Baines, D.E., (1988), ‘The labour supply and the labour market 1860-1914’, in R. Floud and D. McCloskey, *The Economic History of Britain since 1700, vol.2, 1860 to the 1970s*, (Cambridge, University Press), P.162.

<sup>3</sup> Monopsony is where a firm acts as the only buyer of the factor of production in a market where there are many sellers. Hence we can think of the firm as an active agent in the market capable of utilising market power and turning private firm level costs into public social costs.

Survey, examines the impact of a living wage on income distribution within the UK. Section 2 examines the contemporary literature on the living wage and highlights its recent successes, while section 3 examines an economic explanation of monopsony for market failure underpinning the justification of a living wage. Section 4 introduces the data used to examine the potential impact of a living wage while section 5 provides evidence that, as advocates of the living wage suggest, while the cost of introducing a living wage in the public sector is small the impact on young and women workers and on household income inequality is significant. In conclusion the paper returns to the role of the use of regulation of labour markets as a mechanism of public policy.

## 2. The Living Wage Campaign

The current interest in the living wage originates in the spread of a movement from the United States to the United Kingdom in the 1990s. The transmission of the concept derived from support provided by the community organisation The East London Communities Organisation (TELCO) and the public sector UNISON.<sup>4</sup> Research on low pay amongst workers in the East End of London demonstrated the incidence of low pay among cleaning workers across the city and the role that contracting-out of services had played in encouraging levels of pay to fall close to the minimum wage level of £3.70 per hour in 2001.<sup>5</sup> Those working in low paid sectors were likely to be excluded from wider labour markets due to these other firms' recruitment policies which focused upon higher skilled labour. In the case of private sector cleaning companies such as those contracted to Canary Wharf in London firms concentrated their recruitment focus upon recent migrants, and as white workers and older immigrant groups, such as those from the Caribbean, moved out of cleaning more recent immigrant groups replaced them. These workers often found their language skills restricted their access to better paid employment. The development of Compulsory Competitive Tendering (CCT) within public bodies, to ensure low cost provision of goods and services, was identified as one of the key drivers in these developments whereby reduced costs were achieved through cuts in staffing, pay levels and quality of provision.<sup>6</sup>

A further group found to be working in the low pay sector, particularly in the case of those who remained within the public sector, were female workers in households with children. These workers were dependent upon work which fitted with existing low cost childcare arrangements. These groups were also often found to be at risk of their pay and conditions of service being reduced over time in the face of threats of contracting-out of service provision to private providers under CCT rules.<sup>7</sup> Thus in-house provision

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<sup>4</sup> For a chronology of the British development of the living wage campaign see <http://www.geog.qmul.ac.uk/livingwage/chronology.html>.

<sup>5</sup> Wills, J., 2001, 'Mapping Low Pay in East London', (London, UNISON), p.3.

<sup>6</sup> Wills, J., 2001, 'Mapping Low Pay in East London', (London, UNISON), p.8.

<sup>7</sup> See Wills, 'Mapping', pp.7-10 and Wills, J. (2007), 'A global workforce in a global city: The skills, experiences and aspirations of a group of contract cleaners in London, UK', Queen Mary University, Dept Geography, Working paper. p.4.

remained but only if higher pay, conditions and staffing levels fell to imitate those lower levels of pay, conditions and staffing exhibited in the private sector.

The development and spread of low pay within a highly segmented labour market is suggested to have been a direct consequence of the rise of a new unequal geography of globalisation.<sup>8</sup> Globalisation has permitted rising profitability within business occurring at the expense of the share of wealth going into wages and salaries.<sup>9</sup> While living standards were maintained it was only done so at the cost of rapidly rising levels of personal debt which itself triggered the current global economic crisis.<sup>10</sup> As a result, Wilkinson and Pickett suggest, contemporary advanced societies have seen rapidly rising levels of inequality across a range of social indicators including income, health and wellbeing, crime, violence and social dislocation.<sup>11</sup> Further, the ability to resist these processes has been reduced by falling trade union membership and weakening of trade union influence in pay bargaining with the result that the least skilled, least educated and most vulnerable workers are the most likely to face low wages and poor working conditions.<sup>12</sup>

Globalisation has, in conclusion within this literature, ensured that high levels of low wage labour has emerged and this labour has been found to have limited access to higher waged, higher skilled labour markets. Thus, the living wage discourse identifies both low bargaining power and a resultant inequality within earned income as central to explanations for the need for regulation of low skill labour markets. A living wage may also, we might suggest, have a progressive impact on those sections of the labour force trapped into low waged, low skilled work, in particular those facing discrimination in terms of age, gender or race.

The success of the Living Wage campaign in London is suggested to have won pay increases for some 6,000 workers in London across the private and public sectors

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<sup>8</sup> Harvey, D. (2006), *Spaces of Global Capitalism*, (London, Verso), Stiglitz, J. E. (2002), *Globalisation and its Discontents*, (London Penguin) and Harman C. (2009), *Zombie Capitalism: Global Crisis and the relevance of Marx*, (London, Bookmarks) for differing perspectives on the extent and development of globalisation.

<sup>9</sup> This point is made from two very different perspectives by Brenner, R. (2006), *The Economics of Global Turbulence*, (London, verso) and Daly, K and Broadbent, B (2009), 'The Savings Glut: the Return on Capital and the Rise of Risk Aversion' *Global Economic Paper*, No. 185, Goldman Sachs Global Economics, Commodities and Strategy Research.

<sup>10</sup> See Turner, G. (2008), *The Credit Crunch: Housing Bubbles, Globalization and the Worldwide Economic Crisis*, (London, Pluto Books).

<sup>11</sup> Wilkinson R. and Pickett K. (2009), *The Spirit Level: Why More Equal Societies Almost Always Do Better*, (London, Allen Lane).

<sup>12</sup> Mason P. (2007), *Live Working or Die Fighting: How the Working Class Went Global*, (London, Harvill Secker) and Patel R. (2007), *Stuffed and Starved: Markets, power and the Hidden Battle for the World Food System*, (London, Portobello).

ensuring increased income to poor households totalling over £30 million by 2009.<sup>13</sup> As a result calls for a living wage have become central to union wage bargaining and campaigns across the UK. Locally calculated living wages have begun to be developed to reflect the variation of living costs across the UK. A recent example of this is Glasgow City Council who in 2009 was the largest of 130 employers across the city to support the introduction of a £7 per hour living wage.<sup>14</sup>

A wider role for the public sector, as a mechanism for encouraging the development of a living wage, has also been recognised. The public sector as a major employer, indeed the largest employment sector in many areas, potentially provides a significant driver for introducing a living wage within the private sector. As a significant purchaser of goods and services, many of which fall into the employment categories typical of the minimum wage sectors, the public sector may impose minimum conditions of employment upon all private contractors awarded contracts. While this is an important potential externality for a public sector living wage it is difficult to accurately assess. Thus, it is the narrower impact of a living wage on the public sector that is the focus for the study in this paper. Before doing so, however, we first turn to providing an economic understanding of a living wage.

### 3. Economic Theory and the Living Wage

Models of perfect competition within economics suggest that in equilibrium labour gains its marginal product value in relation to the production process. Where this equilibrium fails to emerge in the short-run market signals provide an automatic mechanism for moving towards equilibrium through the price mechanism. It is efficient for firms to increase the quantity of labour employed where the marginal product of a marginal increase of labour is greater than the price paid for that unit of labour. Where the marginal product of labour is below the price paid for the last unit of labour employed it is efficient for the firm to reduce the quantity of labour employed and reduce output. Hence in models of perfect competition labour automatically gains its true value based upon the need for firms themselves to achieve a profit maximising level of efficiency at a point where marginal cost equals marginal revenue.<sup>15</sup>

Under perfect competition the wage paid for labour is also suggested to reflect the value added in the production process and low skilled labour therefore receives a low wage due to its limited contribution to the value added in the production process. Stable, draws on

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<sup>13</sup> Press release; Queen Mary College, University of London, 'Clean living: new report shows economic and ethical benefits to paying cleaning staff 'living wage' at Queen Mary', Friday, 18 December 2009.

<sup>14</sup> See [www.glasgowlivingwage.co.uk/Glasgow\\_living\\_wage\\_employers/](http://www.glasgowlivingwage.co.uk/Glasgow_living_wage_employers/) accessed 16<sup>th</sup> December 2009.

<sup>15</sup> Any first year introductory textbook provides an explanation for this approach. For example see Begg D., Fischer S., and Dornbusch, (2000), *Economics*, (sixth edition, McGraw Hill, London), pp.117-23.



this analysis for his rejection of a living wage and suggests a living wage would distort market signals and hence introduce inefficiencies within market economies.<sup>16</sup>

The major difficulty with this approach is the assumption of perfect competition. While perfect competition is introduced to first year economic undergraduates as a mechanism for resource allocation it is not an assumption that is retained as the teaching of economics is developed. Models of imperfect competition, with firms represented as price-making rather than price-taking agents, all provide a much richer and subtler approach to understanding the behaviour of firms and real world markets. Under these environments firms are capable of exercising market power and in the case of monopoly, where one seller exists, or monopsony, where one buyer exists, we can demonstrate that despite firms retaining a profit maximising utility function the outcome is not efficient for the economy as a whole.

It is of course not that Stable fails to recognise non-market behaviour. Indeed Coase is utilised to demonstrate how firms act to minimise and abolish externalities arising from imperfect competition.<sup>17</sup> However the difficulty with this is that Coase, in suggesting that firms exist as a means of generating transaction cost savings through hierarchical co-ordination as opposed to market co-ordination, provides evidence that perfect competition is indeed an unhelpful starting point. If firms emerge and employ labour directly rather than use markets for co-ordination it is because there are transaction cost savings to be achieved through direct employment.<sup>18</sup> These savings, within a Williamson type transaction cost framework, derive from lowering search, contracting and enforcement costs for labour.<sup>19</sup> Thus labour contracts provide a mechanism for the firm to counter-act, i.e. ignore, market signals and increase efficiency through the transaction cost savings of hierarchies. But these savings are not automatically shared with labour and can be captured by the firm itself. So as Pitelis demonstrates the very existence of firms themselves indeed demonstrate the development of bargaining power of firms over labour, hierarchy over market co-ordination.<sup>20</sup>

Heterogeneity within human capital formation may give rise to specific problems with the supply of low skilled labour. A section of the labour force may have low skill due to endogenous factors, for example poor formal qualifications or low levels of uncoded knowledge acquired through learning-by-doing, or exogenous factors, for example work processes organised in such ways that low levels of workplace training are provided. Heterogeneity within human capital formation may thus generate a section of the labour

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<sup>16</sup> Stable, D.R., (2008), *The Living Wage: Lessons from the History of Economic Thought*, (Edward Elgar, Cheltenham).

<sup>17</sup> Stable, D.R., (2008), *The Living Wage: Lessons from the History of Economic Thought*, (Edward Elgar, Cheltenham), pp.124-31.

<sup>18</sup> Coase, R.H., (1937), 'The nature of the firm', *Economica*, (N.S.) 4, pp.386-405.

<sup>19</sup> Williamson, O. E (1985), *The economic institutions of capitalism : firms, markets, relational contracting*, New York, Free Press.

<sup>20</sup> Pitelis, C. N., (1993), *Market and non-market hierarchies : theory of institutional failure*, Oxford : Blackwell.

force unable to access higher skilled, high wage employment as an alternative to low skilled, low paid employment. Alternatively, we might assume heterogeneity within the demand for labour and an over-supply of unskilled labour might depress wages in the unskilled sector. Employers under these circumstances may choose a low capital production function and maximise profitability by employing lower cost workers than might otherwise be the case. Such an over-supply of unskilled labour may be identified as arising from either a real growth of the labour supply, for example through migration between countries, discrimination over access to higher paid work facing a section of the population, or alternatively from an employer's threatened use of globalised production processes and the movement of production abroad. Finally, we might identify imperfectly competitive market structures whereby employers possess, and utilise, bargaining power over employees. Where firms are considered to be price-makers rather than price-takers a deadweight social loss emerges that ensures profit maximisation still occurs for the employer but additional social costs are incurred by society. Within this framework, as we go on to show, this social cost may be borne by unskilled workers through low wages.

Economists who have moved away from models of perfect competition have generated very different conclusions to conceptualising the role of labour in economies.<sup>21</sup> Blanchflower and Oswald's work on the relationship between local unemployment and wage rates suggest that a wages curve implies a negative correlation and causation between unemployment levels and wage rates. Rather than employers having to compensate workers with a disutility premium for living in areas of high unemployment higher levels of local unemployment are associated with lower wage levels. They argue that an estimated unemployment elasticity of pay of -0.1 holds and that this finding is at odds with orthodox teaching of labour market behaviour but is consistent with bargaining and efficiency wage models.<sup>22</sup> They suggest their findings are borne out by empirical data across time and across countries. Indeed Blanchflower and Oswald argue that their conclusions are so strong that 'much of conventional thinking is wrong'.<sup>23</sup> Furthermore, in his analysis of the operation of the U.S. minimum wage, Flinn also used a model incorporating imperfect competition to generate results that would suggest that in order to maximise welfare the minimum wage should rise dramatically to \$8.66 per hour compared to the minimum wage level of \$4.25 that existed at the time.<sup>24</sup> His argument was that an increase in the minimum wage would significantly increase participation rates on the supply side (by decreasing the rate of 'Out of the Labour Force') with the result that while unemployment rates would rise total welfare could be demonstrated to rise by 24.2 per cent.<sup>25</sup>

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<sup>21</sup> Sawyer, M.C. (1979), *Theories of the Firm*, (London, Weidenfield & Nicholson), provides an introduction to much of this work.

<sup>22</sup> Blanchflower D.G. and Oswald, A.J., (1996), *The Wages Curve*, (Massac, USA, MIT), p.361

<sup>23</sup> Blanchflower D.G. and Oswald, A.J., (1996), *The Wages Curve*, p.13

<sup>24</sup> Flinn, C.J., (2006), 'Minimum Wage Effects on Labor Market Outcomes under Search, Matching, and Endogenous Contact Rates' *Econometrica*, Vol. 74, No. 4 (Jul., 2006), pp. 1013-1062

<sup>25</sup> *Ibid.*, p.1058

Most famously we can suggest that the work by Akerlof, leading to the awarding of the Nobel prize in economics, on uncertainty is also of relevance.<sup>26</sup> Akerlof's key argument was that in a market whereby the seller of a good (poor quality second hand cars - "lemons") knows the quality of the product but the purchaser cannot judge the quality of the good, prices are driven down as all goods in the market are considered to be inferior (all second-hand cars are considered to be "lemons"). Under these circumstances only poorer quality goods can be found in the market as good quality providers cannot use price as a signal of quality.

While Akerlof uses the car market to highlight the role played by uncertainty he goes on to suggest that in other markets where information asymmetry exists, such as in relation to recruitment, similar markets for "lemons" emerge. As Akerlof suggests in relation to disadvantaged groups facing discrimination in employment "an employer may make a rational decision not to hire any members of these groups in responsible positions – because it is difficult to distinguish those with good job qualifications from those with bad qualifications"<sup>27</sup>

In the case of markets whereby firms provide low skill services, such as cleaning, those firms capable of providing lower quality (through lower pay, conditions and staffing) drive out higher quality, existing in-house, providers generating a market for "lemons".

This literature suggests that once we move away from conceptualising markets as perfectly competitive it is a common result for firms to be able to gain and exercise market power. Regulation of the labour market through minimum wages may then be understood as a mechanism to reduce firm's abuse of their market power.

For the purposes of this paper we suggest that where firms act as monopsonists within a labour market we can readily demonstrate a standard result that wages will be lower than under perfect competition. Under monopsony where a firm decides to increase its quantity of labour it no longer faces a constant price for labour and instead faces an upward sloping labour supply curve. Figure 1 compares the labour supply curve for a firm under perfect competition  $S(p)$  with the labour supply curve under monopsony  $S(m)$ .<sup>28</sup> Where a firm under perfect competition introduces a marginal increase in labour from  $L$  to  $L^*$ , their marginal costs remain constant (wage  $W$ ). In contrast where the same marginal increase in the quantity of labour is introduced for a monopsonist, due to the upward sloping supply curve the cost of labour has increased from  $W$  to  $W^*$ . The shaded area represents this cost increase to  $W^*$ . This new level of wages may be considered as the total rise in cost of a marginal increase in labour. The result is that the monopsonist

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<sup>26</sup> Akerlof, G. A. (1970), 'The Market for "Lemons": Quality Uncertainty and the Market Mechanism', *Quarterly Journal of Economics*, 84, 3, pp.488-500

<sup>27</sup> Akerlof, G. A. (1970), 'The Market for "Lemons"', p.495.

<sup>28</sup> See Frank, R.H, (1994), *Microeconomics and Behaviour*, 2<sup>nd</sup> edition New York, McGraw Hill, p.572-77 for a fuller discussion.

firm faces rapidly rising marginal labour costs and therefore sets production at a level lower than would be expected under perfect competition.

INSERT FIGURE 1 HERE

If monopsony permits us to explain the market failure which gives rise to the proposal for a living wage what impact would such a policy have? It is to this question we now turn but prior to doing so we highlight our methodology and use of the UK Quarterly Labour Force Survey and British Household Panel Survey data in addressing these issues.

#### 4. Methodology & Data

Our study seeks to examine the distribution of low wages within the UK labour market. The UK Quarterly Labour Force Survey (QLFS) is the largest and most authoritative data set available for this form of research. The QLFS is a quarterly survey of those within the labour force, employed and unemployed, with detailed data on wages rates and individual characteristics. Our study of the QLFS is obtained by aggregating together 16 waves of quarterly data, starting with the January 2005 to March 2005 quarter, and finishing with the October 2008 to December 2008 quarter. Once we have excluded those respondents who are not in paid employment, and those missing data that we require for our analysis, our sample consists of 102,121 employed respondents, of whom 73,167 are in the private sector (71.6% of all employees) and 28,954 in the public sector (28.4%).

The QLFS data permits us to disaggregate the population by wage levels and in this study we disaggregate the population into bands of wage levels increasing at each level by 25 pence. We further disaggregate the population into private and public sector to examine the differences within the two sectors.

Once we have disaggregated the population into wage bands it is possible to notionally increase public sector wage rates such that all public sector employees currently paid at a rate less than the living wage are instead paid at a level equal to a living wage in order to examine the costs of a living wage on the public sector. Where the living wage has already been implemented its level has been determined by reference to a relative poverty measure, and in practice its level has been £7.00 per hour or thereabouts.. In our analysis we examine the effects of a living wage set at a variety of levels, though the focus of our discussion is on the effects of a living wage set at the rate identified by the Joseph Rowntree Foundation (JRT) and set by Glasgow City Council in 2009, namely £7.00 per hour. It is important, however, to acknowledge two qualifications regarding this approach. First, the analysis does not take account of any increase in wage bill asked, or required, of private sector employers who provide goods or services to the public sector. Second, the analysis does not take account of any wage rises that employees above the living wage may seek in order to maintain wage differentials over those employees benefitting from the introduction of the living wage. Thus our analysis is a comparative static assessment and does not consider dynamic effects.

Our final analysis of the QLFS involves the further disaggregation of the data to examine specific effects of a public sector living wage on young workers, women workers, female single parent households and ethnic minority.

Our final analysis involves investigating the extent to which a living wage may act as an effective policy lever in addressing inequality. In order to examine this we need to use a different data set to the QLFS. Although much smaller in size, with only 10,000 households, the British Household Panel Survey (BHPS) crucially permits us to link wage earners together in order to examine changes of wage rates on household incomes and household inequality. The BHPS thus provides us with the ability to utilise household composition data to examine the impact on inequality within the income distribution at the household level. Hence we can examine changes in the level of household inequality, a key indicator of the reduction of market failure identified by proponents of the living wage. In this section of the analysis we use equivalised household income (i.e. household income data adjusted by a McClements Scale score for household composition in order to obtain income measures that more accurately reflect household poverty levels) to examine the extent to which the increase derived from a living wage goes to households lower down the income distribution at each decile level. Here again we are using a comparative static approach and do not consider dynamic effects. Most importantly we do not estimate the impact of the reduction of means tested welfare income caused by increases in earned income.

## 5. Results

### **Low Pay & the costs of a Living Wage**

Figure 2 below presents the distribution of hourly wage rates in the QLFS data for all employees, plus separately for private and public sector employees.<sup>29</sup> What is very marked about these results is the modal wage for both all employees and private sector employees at the statutory minimum wage for non-youth employees (as of October 2008 this stood at £5.73 per hour, falling within the £5.50 - £5.74 per hour band) – this single hourly wage band accounts for 3.03% of all employees and 3.77% of private sector employees. For public sector employees, the distribution peaks at £7.50 - £7.74 per hour, with 2.38% of public sector employees in that hourly wage band. These results suggest that for much of the private sector the statutory minimum wage constitutes a binding constraint on just how low hourly wage rates can be set.<sup>30</sup> An immediate conclusion flowing from this is that a living wage could potentially constitute a binding constraint on low hourly wage rates in the public sector.

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<sup>29</sup> The graphs are truncated at the upper end at an hourly wage rate of £25 per hour, which encompasses 93.4% of employees, 93.3% of private sector employees and 93.6% of public sector employees.

<sup>30</sup> As highlighted above, private sector employees account for 71.6% of the total employee sample, so the minimum wage peak in their wage distribution is primarily responsible for the all employee minimum wage peak.

INSERT FIGURE 2 HERE

The principal reason that tends to be used for a public body not paying a living wage over and above the statutory minimum wage is the financial cost of such a policy (and the consequences for taxation and / or public services). Figure 3 below shows the cost to the public sector of applying differing levels of the living wage (expressed as a percentage of the current public sector wage bill).<sup>31</sup> It is clear that the cost to the public finances increases as the proposed living wage increases; *ceteris paribus*, a higher living wage results in a higher number of employees benefitting from the living wage and a higher average benefit per employee (with the total benefit to employees (and hence the total financial cost to the public sector) being the product of these two numbers). In theory this suggests the possibility that the financial cost of the living wage would rise exponentially as its rate increases. However, proponents of the living wage, and its early adopters, have more modest targets in mind.<sup>32</sup> Our analysis indicates that if the living wage recommended by the Joseph Rowntree Foundation and set by Glasgow City Council of £7.00 per hour were applied nationally it would increase the UK's public sector wage bill by 1.21%. Even factoring in the additional national insurance and pension contributions this rises to just 1.51%.<sup>33</sup> The evidence thus does not support the argument that a living wage would impose an unreasonable financial burden on public bodies. Whilst these numbers are not miniscule, in the context of the government's strained finances at the time of writing (early 2010) neither are they of the kind of magnitude that the opponents of the living wage would imply in their arguments.

INSERT FIGURE 3 HERE

Although the living wage we have focused on resulted from research undertaken by the Joseph Rowntree Foundation is just one possible figure, Figure 4 below presents the marginal cost of moving the living wage from one wage rate band to the next (in effect a 25 pence increase in the minimum wage); again, these costs are denominated as a percentage of the public sector wage bill.

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<sup>31</sup> The analysis limits itself to the financial cost to the public sector of increases in the wages it pays its employees; it does not take account of additional wage-related costs to the public sector such as employer national insurance contributions or employer pension contributions. Additional National Insurance contributions and employer pension contributions would amount to approximately a further 25% increase in the cost brought about by the introduction of the living wage.

<sup>32</sup> The figure of £7 per hour is derived from research undertaken by the Joseph Rowntree Foundation. Information about the Glasgow City Council scheme, and the successes it has achieved, are available at

[http://www.glasgowlivingwage.co.uk/What\\_is\\_a\\_Living+\\_Wage/](http://www.glasgowlivingwage.co.uk/What_is_a_Living+_Wage/).

<sup>33</sup> It is also important to note that employee wages are not the entirety of the public sector's costs – given that many public sector bodies spend around 60% to 65% of their budget on employee wages, the cost of the living wage could alternatively be presented as about 1% of the total public sector budget.

INSERT FIGURE 4 HERE

Our analysis shows that the additional cost of increasing the living wage from £7 per hour to £7.25 per hour would be only 0.26% of the current public sector wage bill, while the saving achieved by instituting a living wage of only £6.75 per hour would lessen the cost by only 0.22% of the current public sector wage bill. The relatively low cost of a higher living wage combined with, as we demonstrate later in the paper, the inequality reducing effects of a living wage means that the £7 per hour recommended by the JRT and implemented by Glasgow City Council could perhaps be increased still further.

While the above highlights the extent of low pay and the relatively low costs of regulating low pay it is also necessary to consider who benefits from a living wage in the public sector.

### **Youth, Gender & Ethnicity**

As Figure 2 above highlighted the hourly wage distributions do not begin at £5.73 per hour (the £5.50 - £5.74 per hour wage band) – 12.3% of all employees, and 15.0% and 5.6% of private and public sector employees respectively, earn below the non-youth statutory minimum wage. Two principal reasons for this exist. First, workers under the age of 22 have a lower statutory minimum wage (as of October 2008 it was £4.77 per hour for employees in the age range 18-21, and £3.53 for employees in the age range 16-17). Second, not all employers will be compliant with the minimum wage legislation.<sup>34</sup> If young workers are particularly affected by low pay we should be able to identify the increased prevalence of young workers in the QLFS wage data. Figure 5 below provides exactly this insight into the extent to which those employees on the lowest hourly wage rates tend to be young employees – the data indicate, for each of the hourly wage bands, the ratio of the percentage of young employees in that band compared to the percentage of all employees in that band. Thus, for example, 3.75% of young private sector employees are in the £5.50 - £5.74 hourly wage band, compared to 3.77% of all private sector employees, resulting in a percentage of 99.43; the figures for the public sector are 1.78%, 1.14% and 155.99% respectively.

INSERT FIGURE 5 HERE

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<sup>34</sup> A third, data-related possibility exists. Our sample consists of data drawn from 16 quarters of the QLFS; all wage data taken from quarters prior to the last (October 2008 to December 2008) have been inflated on the basis of the UK's Retail Price Index (RPI) to make them comparable to October 2008. It is possible for those at the very bottom of the hourly wage distribution that changes in the statutory minimum wage may have resulted in hourly wage increases different to (possibly greater than) the change in the RPI, so our adjustment would slightly understate the hourly wage rate increases these low paid employees actually received.

The main result is quite dramatic, though not entirely a surprise – for both the private and the public sector there is a clear, positive relationship between age and hourly wage rates (young employees are much more likely to be placed in low hourly wage bands than their older counterparts). However, a more disturbing result can also be discerned. Whereas Figure 2 demonstrated that private sector hourly wages are much more skewed towards the minimum wage, this evidence demonstrates that young workers in the public sector are more likely to be found at the lower wage bands than older workers. Thus whatever protection against low wages is offered by the public sector, this protection tends to be reserved for its older employees. For most wage bands prior to the £7.00 - £7.24 band, younger public sector workers tend to be placed within each band with a frequency two to three times that of their older public sector counterparts.

This result has strong implications for the appropriate applicability of the living wage across age groups. The UK's minimum wage legislation offers differing levels of protection depending on the employee's age, with a standard hourly rate for those aged 22 and above and a lower rate for those between 18 and 21 and an even lower rate for those who are 16 or 17. The stated intention was to prevent the minimum wage pricing young (less experienced) people out of the labour market. These results suggest that contrary to what we might expect, it is public sector that is incorporating age into its wage structure more markedly than its private sector counterpart. Therefore, incorporating into the living wage regulations the age discrimination found in the minimum wage seems highly likely to generate widespread, unequal treatment of young workers by the public sector. The regulation of the labour market that a non-discriminatory living wage would introduce would impact quite markedly on the public sector's low wage structure.

Low pay is not spread evenly throughout the demographic groups in British society, and the above analysis suggests that we need to examine whether the living wage would target its assistance at other disadvantaged demographic groups, for it is not just young workers who the living wage literature suggests are particularly disadvantaged by weak regulation in the labour market. Women generally and specifically women in single parent households and ethnic minority workers are all specifically identified as subject to problems within the labour market. To this end we examined the extent to which the living wage would in fact target its assistance at these particular groups – women (who make up 66% of our public sector sample) and ethnic minority workers (6.9% of our public sector sample). Figure 6 below suggests that the introduction of a living wage would target resources at women workers, though not at ethnic minority workers.<sup>35</sup>

INSERT FIGURE 6 HERE

For the wage bands running from £4.25 - £4.49 through to £18.75 - £18.99 the proportion of the additional wage bill accruing to women workers exceeds their representation in the

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<sup>35</sup> Note in all of the analyses that follow it is assumed that the living wage is applied to all employees, regardless of age.



public sector workforce, peaking at 71.69% for the £7.00 - £7.24 wage band (containing the wage rate recommended by the JRF and chosen by Glasgow City Council). The £7.00 per hour living wage is in fact the optimal level in terms of redressing the gender wage gap. Furthermore, the financial assistance accruing to females as a result of a public sector living wage is particularly focused on those females in single parent households, as indicated by the other data graphed in Figure 6. This data indicates, separately for each wage band, the percentage of public sector female employees who are in single parent households. The general picture to be taken from these data is that female single parents working in the public sector tend to be disproportionately located in lower wage bands, and hence would disproportionately benefit from the introduction of a public sector living wage.

Somewhat contrary to the living wage literature our results do not support the view that a public sector living wage could represent a mechanism whereby the living standards of ethnic minority workers would be targeted. From the wage band £6.25 - £6.49 onwards the proportion of the additional wage bill accruing to ethnic minority workers is less than their representation in the public sector workforce. One explanation for this result may be that ethnic minority workers fill many higher skilled roles, e.g. trained medical positions within the UK's National Health Service, and whether they are doctors or nurses they are unlikely to benefit from a living wage anywhere near the £7 per hour that is the focus of much of the debate about the living wage in the UK. It might also be noted that the living wage literature identifies a particular subset of ethnic minority workers who might not be typically found within the public sector, recent immigrant workers with poor English language skills.

If the QLFS data suggests that a living wage could indeed impact on young and women workers' wage rates, reducing age and gender discrimination, it remains to be seen what impact a living wage could have on inequality more generally. It is to this question that we now turn.

### **Inequality & the Living Wage**

The British Household Panel Survey (BHPS) provides data on household composition. Although the BHPS has a smaller sample size it permits us to go beyond the analysis available with the QLFS and not only identify public sector workers but also group those workers within their respective households and calculate their total household income. This can also be equivalised, using a McClements scale, to ensure comparability between large and small households. In doing so we are then able to rank households within an income distribution into deciles in order to examine the extent to which the benefits from a living wage accrue to those households lower down the income distribution.

Figure 7 demonstrates that the benefits of a living wage accrue predominantly to households in the first and the fourth income deciles. Households in which the working poor are located will be at or below median income (the fourth decile) or alternatively unable to claim work-related benefits (first decile). Workless households in receipt of welfare benefits (typically the second and third income deciles) will see less of an impact

of a living wage and those at the highest end of the income distribution (deciles six and above) will also see very little benefit from a living wage. Thus, bar chart in Figure 7 shows that 17.38% of all of the additional income goes to households in decile 1, while 19.50% goes to households in decile 4. This concentrated effect is even more apparent when we express these additional incomes as a percentage of each deciles existing total income (line graph in Figure 7). Thus, using this approach we see that the living wage's effect is most pronounced on the first decile (0.53%) and the fourth decile (0.22%)<sup>36</sup>. Not surprisingly the living wage needs to be understood as an in-work anti-poverty measure and is particularly effective at addressing inequality within the lowest income decile.

INSERT FIGURE 7 HERE

## 6. Conclusions

This paper examined the literature on a living wage derived from both a human geography and economic perspective. It demonstrated that the arguments for regulating low wages within the labour market can be readily identified within a context of market failure. It further examined the evidence for the impact of a living wage on the public sector and found compelling evidence for the positive effect a living wage could have on three specific groups of workers; young, women and women workers heading single parent households. In addition the living wage had a progressive impact on income inequality for those households in work. Surprisingly, it found little impact on ethnic minority workers but this may be explicable in the limited access to the public sector for newly migrant low-skilled workers.

The cost of the living wage was also found to be low relative to the public sector pay bill. At 1.21 percent of the total pay bill anti-poverty measures such as the living wage may be an effective in-work remedy to household inequality. The additional cost of the living wage would also be offset by rising tax income derived by increased participation rates induced by these incentives to enter employment.<sup>37</sup>

There are two areas where this study may be limited. First we do not address the impact a rise in the wage rate would have on households' receipt of welfare benefits. Were these to be withdrawn at high marginal rates the impact of the living wage would be markedly reduced. Second we have focused our examination of the living wage solely on the public sector. If public sector organisations were to impose a living wage clause on all its private sub-contractors then both the benefit and the cost of the public sector living wage would be greater than indicated by these results.

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<sup>36</sup> These percentage figures might at first sight appear small. However, this is not entirely surprising given that, as we have already seen, the cost of the living wage is only 1.21% of the public sector wage bill, the public sector is only 28.6% of the workforce, and total household income includes not just labour income.

<sup>37</sup> Flinn, C.J., (2006), 'Minimum Wage Effects on Labor Market Outcomes under Search, Matching, and Endogenous Contact Rates' *Econometrica*, Vol. 74, No. 4 (Jul., 2006), pp. 1013-1062.

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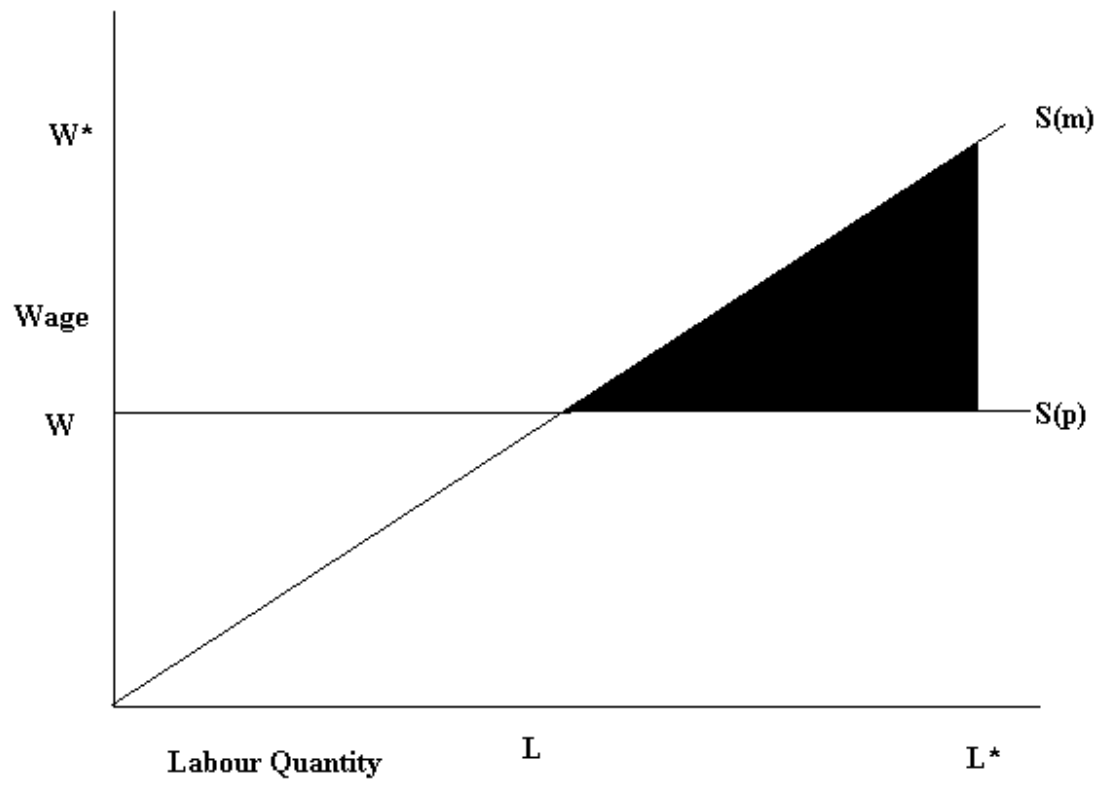
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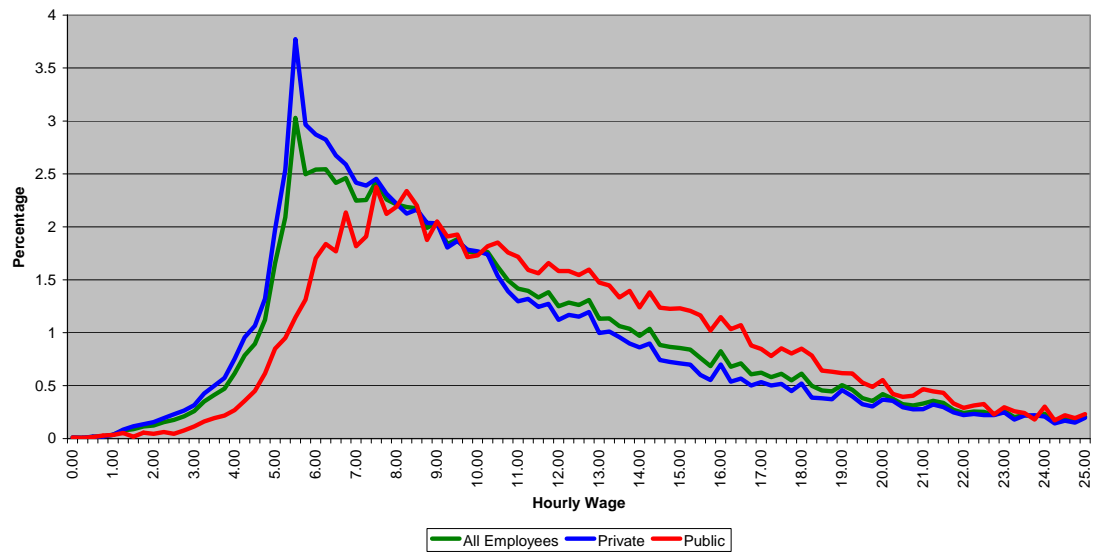
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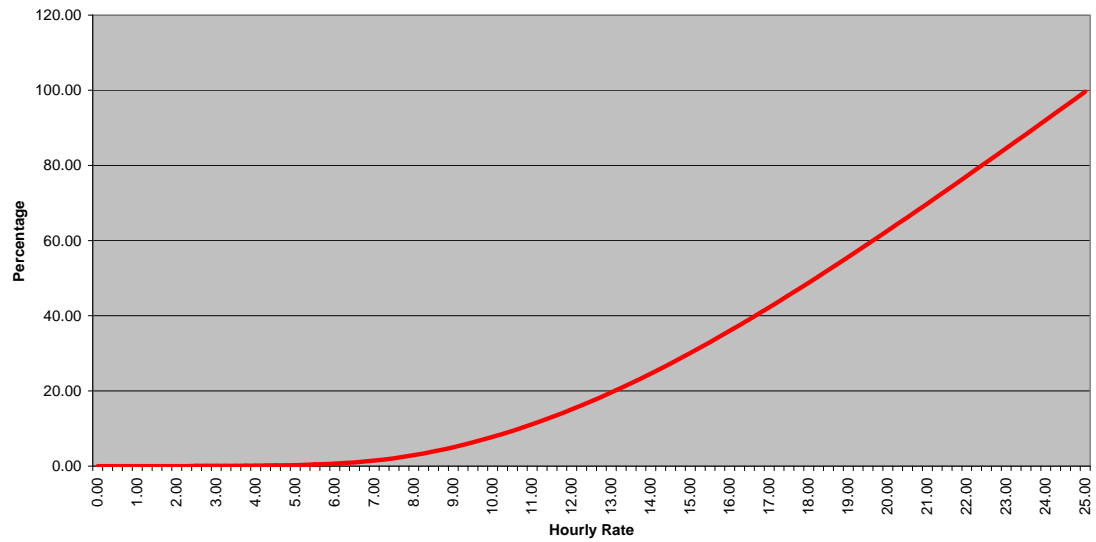
Figure I  
Labour supply under perfect competition and monopsony



**Figure 2**  
**Distribution of Hourly Wages**  
(Source: UK Quarterly Labour Force Survey)



**Figure 3**  
**Cost of Living Wage (percentage of Existing Public Sector Wage Bill)**  
(Source: UK Quarterly Labour Force Survey)



**Figure 4**  
**Marginal Cost of Living Wage (percentage of Existing Public Sector Wage Bill)**  
(Source: UK Quarterly Labour Force Survey)

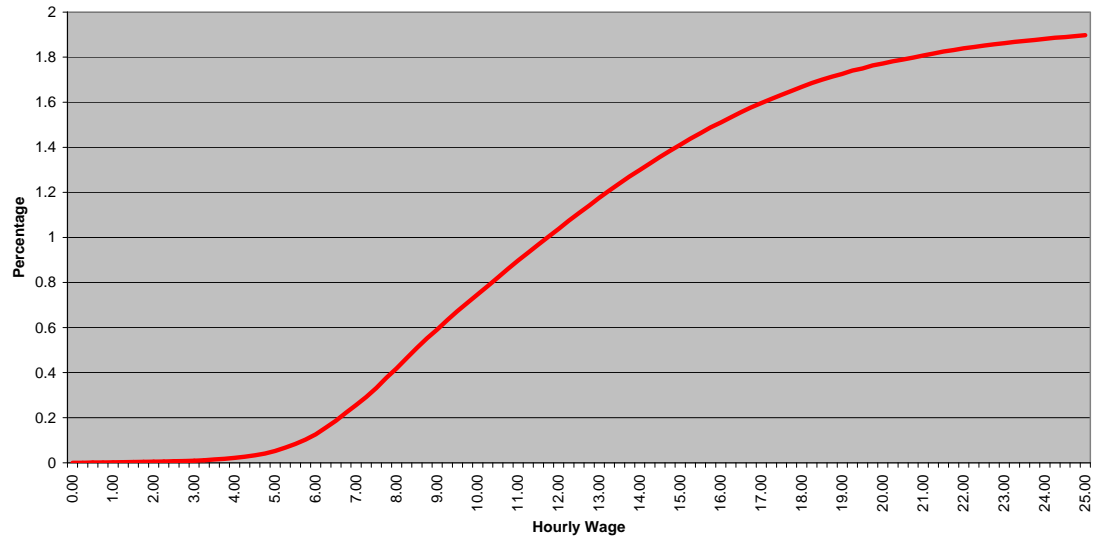
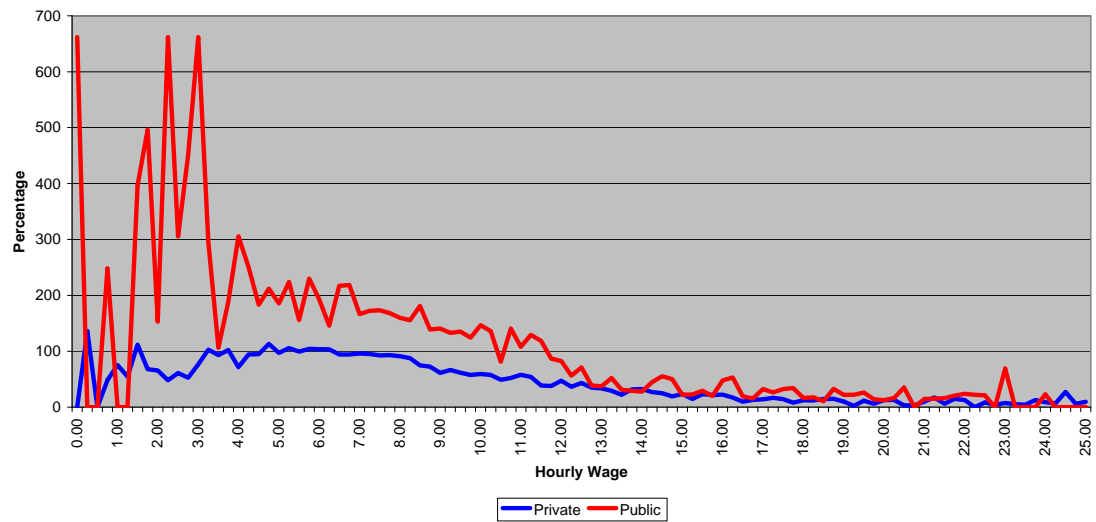
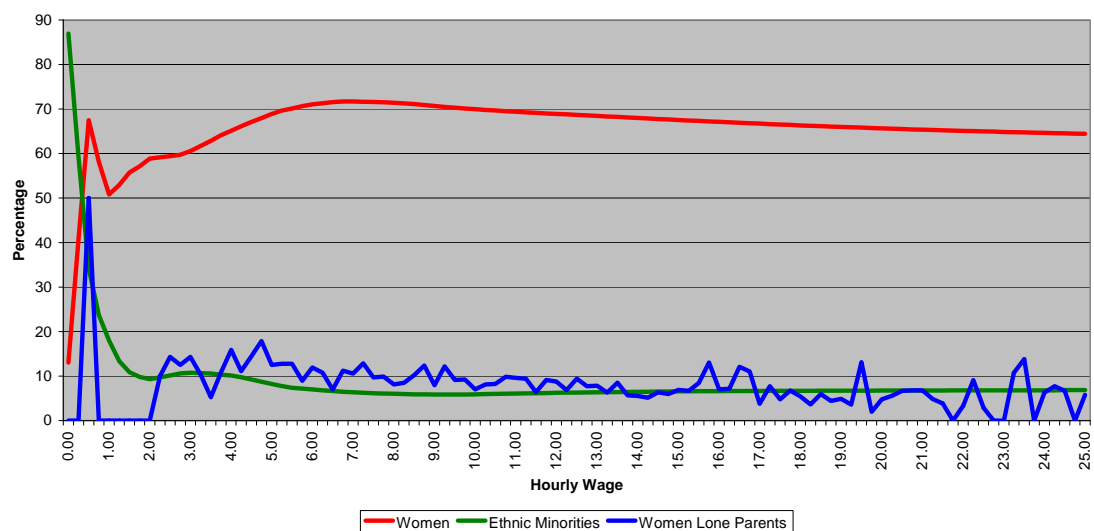




Figure 5  
Young Employee Hourly Wage as % a Percentage of all Employee Hourly Wage  
(Source: UK Quarterly Labour Force Survey)



**Figure 6**  
**Percentage of Living Wage Benefits Going To Women (red) and Ethnic Minorities (green);**  
**Percentage of Women who are Lone Parents (blue)**  
**(Source: UK Quarterly Labour Force Survey)**



**Figure 7**  
**Distribution of the benefits (Equivilised Income) of a £7 per hour Public Sector Living Wage**  
(Source British Household Panel Survey)

